



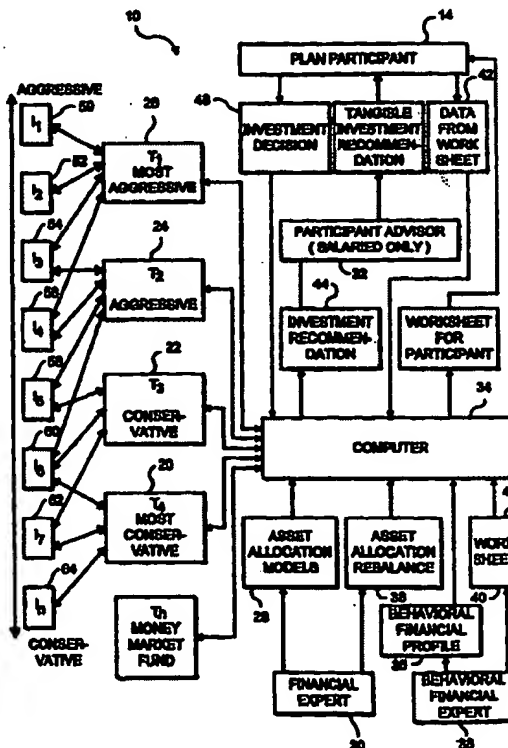
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**(54) Title:** SYSTEM FOR PROVIDING INVESTMENT ADVICE AND MANAGEMENT OF PENSION ASSETS

**(57) Abstract**

An system and method for a data processor implemented system monitor (10) for enabling individual employee participants (14) to access independent professional money management for their Benefit Plan assets adapted to separate the investment management functions and fees thereof from the participant advice function and the fees thereof. The system and method provides professional asset allocation advice services (12) to individual participants (14) of Benefit Plans for allocating their account balances in a Trust (20, 22, 24, or 26) specifically tailored to their individual risk tolerances and retirement funding needs. A worksheet (40) is used to elicit the information necessary for the investment advisor (32) to recommend the Trust (20, 22, 24, or 26) appropriate for each individual participant (14). Each Trust (20, 22, 24, 26) holds shares in a plurality of mutual funds in varying proportions.



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SYSTEM FOR PROVIDING INVESTMENT  
ADVICE AND MANAGEMENT OF PENSION  
ASSETS

Background of the Invention

The present invention relates generally to an investment program which includes a system and a method for collecting, monitoring and directing data from Benefit Plan participants and beneficiaries ("participants"), Benefit Plan sponsors and fund managers and, more particularly, to a data processing system that collects, monitors and directs information from Benefit Plan participants, sponsors and fund managers, to provide professional investment advice to Benefit Plan participants while eliminating the inherent economic conflict of interest in traditional Benefit Plan programs.

The field of retirement savings has been greatly impacted by the vigorous growth of corporate Benefit Plans that offer individual accounts, allowing each participant to direct the investment of the assets allocated to his or her individual account. This practice of allowing each individual participant to manage his or her account has resulted in a need to provide investment advice to a large number of employees, heretofore unfamiliar with even the basics of investment portfolio management.

The entities most capable of providing such investment advice are the same entities that traditionally manage the investments of the commingled funds normally offered in Benefit Plans. Such investment managers receive most (if not all) of their compensation as a percentage of assets managed, with such percentages varying according to the nature of the risk associated with the commingled fund managed. For example an international equity fund would pay a manager a higher percentage resulting in a higher net profit than a domestic bond fund manager for funds having approximately the same assets under management.

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Prior contemplated approaches to providing investment advice to Benefit Plan participants has a built in economic conflict of interest because the investment advisor traditionally receives higher net profits from some of the commingled funds provided versus others. This situation could lead to investment advisors/investment managers consciously or subconsciously recommending or investing in funds that provide the investment advisor with a higher income, a situation possibly not in the best interest of the individual Benefit Plan participant.

Thus, there is a need for an investment program that eliminates this economic conflict of interest by separating the investment advice entity from the investment management entity. Such a system should provide compensation for investment advice totally independent of the investment management entity; should provide investment advice totally independent from and unrelated to the commingled trust investment manager and should insure that the trust investment manager has access only to the aggregate investment of each Benefit Plans and not by individual participants.

#### SUMMARY OF THE INVENTION

Therefore, an object of the present invention is to provide investment assistance to Benefit Plan participants in attaining an appropriate asset allocation for the assets in their individual accounts.

Another object of the present invention is to provide an investment program that increases utilization in self-directed Benefit Plans.

A further object of the present invention is to provide a worksheet that is used to determine an appropriate investment vehicle for each individual Benefit Plan participant.

A still further object of the present invention is to provide a recommendation written or otherwise in a

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tangible form for a specific investment vehicle based on an analysis of the worksheet.

5 The investment program which includes the present invention balances the rendering of investment advice with the long term goals of assets designated for retirement savings. The investment advice may be conveyed to each participant by a participant advisor. The investment advice is generated by a "Financial Expert" compensated in a manner totally separate and independent from the traditional  
10 investment management fees normally (a percentage of the assets under management) charged to commingled trusts.

The system and method of the present invention eliminates possible economic conflict of interest by separating the investment advice entity from the investment  
15 management entity. The professional investment advisor receives fees totally independent from the fees charged for investment management. The investment advisor is totally independent from and unrelated to the commingled trust investment manager. The system and method of the present  
20 invention assures that the investment manager is unaware of the individual pension participant investments, but rather sees only the aggregate investments of a Benefit Plans sponsor.

One aspect of the present invention is a unique  
25 data processing system that provides expert independent investment advice to Benefit Plan participants, at the same time offering professionally managed commingled investment trusts at a more efficient cost structure and eliminates all of the conflicts of interest that would exist in all the  
30 presently known schemes of providing investment advice to Benefit Plan participants.

One representative system for providing asset allocation advice to individual participants in a Benefit Plan includes a data storage for storing data from a  
35 plurality of worksheets, each worksheet being completed by an individual Benefit Plan participant; means for processing the data from each participant such that each participant

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risk tolerance is calculated; an asset allocation model for at least two (2) Trusts, the Trusts including varying proportions of shares in a plurality of no-load Mutual Funds; means for correlating the calculated risk tolerance with an appropriate Trust; and means for generating a written report recommending at least one (1) of the at least two (2) Trusts as an appropriate investment vehicle for each individual participant.

One representative computer implemented method for providing independent expert investment advice to individual Benefit Plan participants for investing in professionally managed, cost efficient, commingled investment trusts while eliminating the conflict of interest between the investment advice and the trust management includes the steps of: developing a worksheet to elicit the funding needs and levels of risk tolerance appropriate for each individual participant; developing a risk profile which includes standards to take into account participants "fear factor" such that the investment recommendation given is likely be followed by the participant over a long period of time; developing an asset allocation model for at least two (2) investment vehicles using generally accepted principles of modern portfolio theory; applying the data from the worksheets to the asset allocation model; determining an appropriate investment vehicle for the Plan Participant; and providing a recommendation to the Plan Participant of at least one (1) of the at least two (2) investment vehicles.

Other objectives and advantages of the present application will become apparent from the following description, the accompanying drawings and the appended claims.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a block diagram generally illustrating the structure of the investment program including the system and method of the present invention;

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Figure 2 is a detailed block diagram of the implementation of the investment program incorporating the systems and methods of the present invention;

5 Figure 3 is a diagram illustrating the investment advice and management system of the present invention as seen by each individual plan participant;

Figure 4 is a diagram illustrating the investment advice and management system of the present invention as seen by benefit plans; and

10 Figure 5 is a schematic diagram of representative computer hardware useful with the present investment advise program.

#### DETAILED DESCRIPTION OF THE INVENTION

15 In carrying out the present invention in preferred forms thereof, we have provided an investment program 10 (see Figure 1) which includes systems and methods for providing professional asset allocation advice services 12 to individual participants 14 in Benefit Plans for allocating their account balances in a Trust(s) 20, 22, 24, 26  
20 specifically tailored to their individual risk tolerances and retirement funding needs. The systems and methods of the present invention are particularly valuable because they provide individual plan participants 14 with much needed advice while taking into account the individual plan  
25 participant's risk tolerances so that each individual plan participant will likely hold the recommended Trust (investment) during the inevitable downturns in the market and, in fact, the Trusts will be professionally managed to exploit opportunities in a down market that most individual  
30 plan participants would not or could not exploit. The system and methods of the present invention are user-friendly in that they are specifically designed to eliminate the confusion from self-directed individual plan account balances while possibly increasing the rates of Benefit Plan  
35 utilization.

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In the system and method of the present invention, investment advice is provided directly to Benefit Plan participants, such as, for example, participants in plans described in §401(k), of the Internal Revenue Code of 1986, Keogh Plans, IRAs which provide for participant self-direction. Under the program 10 which includes the system and method of the present invention, an investment advisor or asset allocation advisor 32 makes a recommendation 46 to each individual plan participant 14 of one of a plurality of life cycle Trusts 20, 22, 24, 26 maintained under the program as an investment vehicle for investing the participants plan account balance.

As shown in Figures 1 and 2, it is presently anticipated that at least four and possibly more such life cycle Trusts 20, 22, 24, 26 would be structured as, presently preferred, at least four separate commingled Trusts and a money market fund, a guaranteed investment contract or similar vehicle 27 (see Figure 2). Each Trust will hold, in varying proportions, shares of some or all of a plurality of mutual funds of an open ended management investment company 18. The investment advisor 32 directly assists participants 14 in making appropriate investment decisions to achieve two important goals: (1) increased Benefit Plan utilization and (2) rendering assistance to each individual Benefit Plan participant such that each participant is likely to attain an appropriate asset allocation for the assets in their individual plan accounts.

Appropriate asset allocation is essential to realizing favorable market returns. Appropriate asset allocation is often a function of an individual plan participant's stage of life. It is generally accepted that younger participants with longer life time horizons should invest in more equity-weighted Trusts, whereas older participants with shorter life time horizons and lesser funding needs should invest in more bonds/money market-weighted Trusts. The initial four different Trusts are



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designed to assist any particular participant in achieving his or her retirement funding needs by varying the weightings of each Trusts holdings in, presently preferably, a plurality of no-load mutual funds. Thus, each Trust is tailored to meet different retirement investment needs. The recommended course of action provided by the investment advisor to each participant is designed to incorporate the prudent practices and procedures of retirement funding applicable to defined Benefit Plans and is provided in a simple and user-friendly form to defined Benefit Plan participants.

Any solution to the problem of Benefit Plan participants allocating their account balances in less than an optimal manner must take account of the typical participant's tendency to change investments in reactions to short-term performance trends. Short-term market volatility has proven to be the nemesis of individual investors, influencing them to "buy high and sell low." The first step in determining an appropriate Trust for any one individual participant is to determine his or her risk tolerance, among other criteria. A worksheet 40, as will be explained later, is used to elicit the information necessary for the investment advisor 32 to recommend the Trust appropriate for each individual participant. This is accomplished by determining from each plan participant into which Trust he or she should invest, taking into account the "fear factor" (i.e. the typical participant's inordinate fear of losing any money) and the expected fluctuation in net asset value of each Trust.

Each Trust is a portfolio containing varying percentages of different asset classes through its investments in the plurality of mutual funds. This design was implemented to take into account the fact that the investment performance of different asset classes is imperfectly correlated, thus, buffering short-term fluctuations in the investment portfolio's overall value. Because plan participants will see only the net asset value and fluctuation at the investment portfolio level, i.e., of

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the Trust itself, they will not be unduly alarmed by fluctuations in the values of the shares of any one mutual fund or other investment vehicle incorporated in the Trust.

Furthermore, since each Trust is a portfolio of composite asset classes through its investment in the plurality of mutual funds, fluctuations in the value of the shares of individual mutual funds should mitigate portfolio or Trust fluctuations. This should help protect plan participants from subscribing to the temptation of selling a falling asset class in a down market. In fact, quite the opposite is believed will occur in the present program, in that to be maximally advantageous to plan participants, the asset classes in each Trust will be periodically re-balanced according to criteria provided by a Financial Expert 30, as will be explained later.

As mentioned above, the investment options available under the asset allocation program of the present invention are, presently preferably, initially a selection of at least four Trusts and, if not otherwise available from a Benefit Plan, a money market fund, a guaranteed investment contract or similar vehicle.

Each Trust holds shares in a plurality of mutual funds in varying proportions. The mix of the plurality of mutual funds in each Trust will be designed to accommodate the different investment strategies of each of the Trusts. In this connection, the Trust range from aggressively structured (generally composed of mutual funds which invest mainly in equities) to conservatively structured (generally composed of funds which invest mainly in fixed income instruments). The Trusts will comprise all or some of any particular Benefit Plans investment alternatives. As presently preferred, each mutual fund has a different investment objective and will be selected from those, presently preferably, available to institutional investors which typically require a minimum investment of about \$250,000 and a minimum of \$25,000 for additional investments, except for the money market fund which, presently preferably,

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requires a minimum initial investment of \$100,000 and a minimum of \$1,000 for additional investments with the minimums being waivable. The, presently preferred, at least four Trusts invest exclusively in shares of some or all of the mutual funds in varying proportions, so that each Trust accommodates different investment needs and risk tolerances, as determined by the Financial Expert.

The Trusts are designed to provide appropriate asset allocations for at least four different "profiles" of participants, with the salient factors being; financial objectives, time horizon, other savings and risk tolerance.

One key to the investment program which includes the present invention is the independent Financial Expert that constructs appropriate asset allocation models for each Trust. The appropriate asset allocation models are constructed using generally accepted principles of modern portfolio theory. The Financial Expert is independent from and has no preexisting relationship with and is no way under the control of the Mutual Fund management or the investment company. The Financial Expert's formulation of asset allocation models may include algorithms, studies, analytics, research, models, papers and other word product or relevant materials as the investment manager determines might be of assistance or interest to the Financial Expert. Furthermore, the Financial Expert, at his sole and absolute discretion, may seek the assistance of others in formulating the asset allocation models.

However, in all cases, the Financial Expert retains the ultimate control and discretion with respect to the development and maintenance of the asset allocation models. The Financial Expert is entirely responsible for determining how the allocation models are best implemented and, thus, will select the mutual funds each Trust will hold and the weightings thereof in order to be compliant with the developed asset allocation model. The asset allocation models, as expressed in an asset allocation computer program, when implemented will not be

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static, but rather the Financial Expert in his sole and absolute professional discretion may make adjustments to the asset allocation models for the Trusts, taking into consideration the investment goals and risk tolerances that the asset allocation models represent and to account for changes in the economy and market conditions. Thus, the Trusts will employ, for the benefit of participants, concepts based on funding needs and proscribed risk tolerances uninfluenced by the compensation interests of Mutual Fund management.

Once the Trusts are appropriately invested in the plurality of mutual funds, disproportionate investment performance by the plurality of mutual funds will cause the Trust investment mix to drift from the Trust asset allocation model. At this point, the Financial Expert will develop a mechanical formula incorporated in an appropriate computer implemented program to re-balance the relative proportions of the mutual funds in each Trust on a predetermined basis. Such formula and the basis upon which the composition of the Trust is designed will be made available to each Benefits' Plan independent fiduciary prior to the Benefits Plan investing in the investment program which includes the system and method of the present invention.

The investment program which includes the system and method of the present invention is based on a very simple idea: to provide the individual plan participant responsible for the investment of his or her account balance with a convenient, user-friendly way to benefit from the knowledge and experience of professional investment advisors and thereby receive investment advice concerning which Trust represents an appropriate allocation of assets in that individual's account under the Benefit Plan. As presently preferred, the investment program of the present invention will be made available only to sophisticated Benefit Plans, i.e. those with a minimum of \$5,000,000 in assets.

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One of the primary goals of the investment program of the present invention is to make investment decisions as simple and user-friendly as possible, while maintaining integrity and accuracy in the investment advice proffered.

5 These goals are accomplished by the investment advisor acting as a fiduciary in making a specific investment recommendation based solely upon information provided for, by or on behalf of Benefit Plan participants. This investment advice will be based, at least in part, upon the answers to questions

10 included in the worksheet, mentioned earlier, designed by a Behavior Finance Expert 36. The worksheet 40, is designed to elicit the funding needs and levels of risk tolerance appropriate for each individual participant. The Behavior Finance Expert will formulate a risk profile and will develop

15 standards which take into account participants "fear factor," thus allowing the investment advisor to provide an investment recommendation that the participant is more likely to follow and maintain over a long period of time.

One important factor in the preparation of the

20 investment recommendation will be each participants response when asked what he or she would do if a loss, equaling the largest loss that could occur in the great majority of likely scenarios, would actually occur. If the answer indicates that the participant would sell his or her shares in a

25 specific Trust in the face of such a loss, a more conservative Trust would be recommended to those participants.

The worksheet 40 will be made available to the participants in many forms, including, but not limited to,

30 hard copies with written instructions and employee enrollment in general information meetings through the Intranet (a secured access subset of the Internet), on computer terminals at the office of the Benefit Plan sponsor or the Benefit Plan sponsor's page on the Worldwide Web etc. Completing the

35 worksheet by the participants will be interactive for computer-oriented participants. Such computer-oriented participants would merely enter as access code which could

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be their Social Security numbers and much of the information that the participants working with the worksheet will be automatically provided, typically by the Benefit Plan sponsor, such as, for example, age, value of the Benefit Plan's assets, annual salary, etc. If any participant does not understand a question during completion of the worksheet by computer, assistance will be provided via the computer such that the participant receives a detailed explanation to each question. Further, toll-free telephone discussions with participant advisors will be available as well as face to face discussions for answering participants questions.

The answers to the questions contained in the worksheet which measure risk tolerance are key to providing impartial investment advice to plan participants. The results of the participants risk profile as determined from the answers to the questions in the worksheet will only be used to recommend the same or a less aggressive Trust. In this situation, the investment advisor will be in the position of recommending a more conservative Trust than would be the case if the worksheet had only a mathematical basis and had no behavior finance component. Thus, by incorporating the behavior finance component in the worksheet as fundamental in determining the appropriate Trust, the inherent conflict of interest which can result from the way fees are traditionally paid in conventional investment vehicles is effectively eliminated. Specifically, under conventional investment programs, by recommending a more aggressive Trust, the typical mutual fund manager would receive higher fees and net profits, because equity based mutual funds typically pay the managers more than bond based mutual funds.

Upon completion of the worksheet 40, each participant's response 42 is analyzed and a recommendation 46 of an appropriate Trust is provided to each participant 14. This recommendation of a particular Trust is designed to assist each participant in choosing the appropriate asset

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allocation based on the participant's risk profile, retirement needs and life cycle stage.

5 The data collection process leading up to the recommendation is designed to provide participants with a better understanding of the program by emphasizing its purpose and goals. Such understanding should better enable participants to maintain their investment in the Trust which is ultimately recommended because maintaining such position is consistent with the information supplied by the participants themselves via the worksheets.

10 Of course, each recommendation will result from inputting the information supplied by or on behalf of the participants into the computer programs which contain parameters supplied by the Financial Expert 30 and the Behavior Finance Expert 36. Neither the investment manager nor the participant advisor 32 has any ability to affect or vary the output of the respective computer programs. Whether a participant 14 elects to invest in the recommended Trust(s) is entirely within the participant's discretion; in other words, the participant may disregard the recommended Trust(s), yet still invest in other Trust(s). Moreover, the present investment program imposes no limits on how often a participant may change his or her investment election. Thus, theoretically, a participant could change the investment selection any day the stock and bond markets trade; however, Benefit Plan sponsors might, as a matter of design, impose limits.

20 A system monitor 66 completely independent of the plurality of mutual funds managers 16 and upon receiving instructions from an individual plan participant 14, will provide benefit individual plan participants with tangible confirmation of each participants transactions, and, further, quotations of the participant's Benefit Plan account will be available by telephone. Both participants and Benefit Plan independent fiduciaries will receive periodic information describing the performance of each individual Trust during the preceding period, market conditions and economic outlook

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and, if appropriate, prospective changes in the asset allocation model and the reasons therefor.

5       The participant 32 receives a reasonable compensation which is not tied to the level of the assets under management in the Trusts. Under the present investment program which incorporates the system and method of the invention, there will be no separate fee paid at the Trust level for asset allocation services. Only the fees from the mutual funds that are charged to all investors and other  
10       reimbursable direct expenses will be charged to the Benefit Plan(s). However, the fees for the Financial Expert 30, the Behavior Finance Expert 36, the development of the risk tolerance component of the worksheet, expenses payable to regulatory authorities, accounting, auditing and legal  
15       expenses, clerical and administrative expenses, expenses of printing and mailing of reports, expenses for computer programmers, certain insurance (including errors and omissions) and fidelity bond premium and other expenses incurred by each Trust in the ordinary course of business  
20       will be payable to the investment advisor.

      The investment program 10 which includes the system and method of the present invention, as described above, provides a mechanism for Benefit Plans to provide their participants with professional investment advisory services  
25       regarding the investment of their account balances in Trust(s) specifically tailored for their risk tolerance and retirement funding needs. The program is particularly valuable because it provides participants with much needed advice which takes into account the participant's risk  
30       tolerances so that participants will likely hold the recommended Trust(s) during the inevitable downturns in the market. The Trust(s) are professionally managed through asset allocation models incorporated in computer implemented programs as defined by an Independent Financial Expert 30  
35       (through their own internal management of assets and through re-balancing) to exploit opportunities in a down market that most participants would not or could not exploit. It is



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believed that Benefit Plans, which provide this particular investment program in order to assist their participants in achieving appropriate asset allocations are providing an investment program that is user-friendly and at least reduces the pain and the confusion out of self-direction of account balances, and, may also result in increased rates of Benefit Plan utilization.

With the system and method of the present investment program, individual participants are protected from over-reaching and self-dealing by safeguards designed into the program itself. Specifically, the Trust(s) manager will provide the independent fiduciary of each Benefit Plan with a current prospectus covering the plurality of mutual funds and full and written disclosure of the investment managements fees and all other expenses and transaction costs charged to or paid by the Benefit Plan at both the mutual fund and Trust level. The Benefit Plan independent fiduciary alone will determine to select and retain the investment program including the present invention for the Benefit Plan. Any individual Benefit Plan will pay no more or receive no less for units in the Trust or shares of the mutual funds than the Benefit Plan would have paid or received in an arms-length transaction with an unrelated party. The mutual fund shares owned by the Trusts will, presently preferably, be no-load mutual funds which trade at net asset value and the Trusts trade at the net asset value of the amalgam of the plurality of mutual funds in which they are invested (less accrued Trust expenses), i.e., the amounts paid or received are derivative. The broker-dealers who effect and execute trades on behalf of the mutual funds are engaged on a "best execution" basis and are independent of and unaffiliated with the trust manager advisor.

The asset allocation of the Trusts are constructed by the Financial Expert 30, a party independent from the investment advisor, using generally accepted principles of modern portfolio theory. No more than five percent (5%) of the financial expert's gross income in any one of his taxable

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years will be derived from the financial advisor or its affiliates.

The allocation models 28 will be entirely developed, maintained and if necessary modified by the Financial Expert. Separate Trusts, which a Benefit Plan sponsor constructs based on different weightings of the mutual funds, may be utilized if the Financial Expert approves of such modification as being appropriate for that type of Trust. Re-balancing of each Trust will occur on a basis determined by the Financial Expert. The re-balancing will be purely objective, automatic and mechanical, with the exclusive goal of maintaining the asset allocation model. Because the mutual funds selected for the present investment program have considerable assets under management and, thus, the mutual funds are independently viable in the institutional market. Further, outside the investment program which includes the system and method of the present invention, the minimum investment in each mutual fund is generally about \$250,000. The fee structure of the mutual funds selected is lower than the fee structure in the "retail" market typically available to the individual participant. The Benefit Plans are, thus, able to take advantage of institutional pricing as a result of their participation in the present investment program. Additionally, the investment company responsible for the trust managers and employs the participant advisors will not receive any fees other than those charged by the plurality of mutual funds and will receive reimbursement only for those "direct expenses" associated with operating the program or other expenses which it pays to unrelated third parties, as described above.

Figure 1 is a block diagram generally illustrating the structure of the investment program 10 including the system and method of the present invention. As shown, investment advice regarding appropriate asset allocation 12 is provided directly to each participant 14 depending upon the criteria discussed earlier. Mutual Fund management

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advice 16 is provided directly to the mutual funds 18. The composition of the Trusts 20, 22, 24, 26 is determined by the asset allocation model. (See Figure 2) for each Trust as dictated by an independent Financial Expert 30. Thus, the separation of the investment advice function from the Trust management function is achieved. As shown, in a Benefit Plan, such as, for example, a 401(k) Benefit Plan, participants 14 may receive asset allocation advice, 12 directly from a participant advisor 32 that is separated from both the Financial Expert 25 and the Mutual Fund managers 16. Based upon this advice, the participants then invest in one or any number of a plurality of different Trusts, such as, for example, a most conservative Trust 20, a conservative Trust 32, an aggressive Trust 24, or a most aggressive Trust 26. As shown, the participant advisor 32 that provides the investment recommendation to the Benefit Plan participant 14 and the plurality of Mutual Funds management advisors 16 are two entirely separate entities and are compensated according to entirely different compensation plans.

Figure 2 shows a detailed block diagram of the implementation of the investment program incorporating the systems and methods of the present invention. As shown, a computer 34 receives inputs from the Financial Expert 30 and the Behavioral Finance Expert 36. Specifically, as discussed above, the asset allocation models 28 developed by the Financial Expert 30 and at an appropriate time, an asset rebalancing model or computer program 38 are loaded into the computer 34. A worksheet computer program prepared by a computer programmer incorporating the worksheet 40 developed by the Behavior Finance Expert 36 is loaded into the computer 34. The worksheet 40 is then transmitted by the computer 34 to either the participant advisor 32 for transmission to the plan participant 14 or directly to the plan participant. Upon receiving the worksheet 40, the plan participant fills out the worksheet 40 and then the data 42 from the worksheet 40 is either provided to the participant advisor 32 for entering into the computer 34 or the data from the worksheet

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40 is entered directly into the computer 34 by the plan participant 14. Upon receiving the data 42 from the worksheet, the computer 34, taking into consideration the asset allocation models 28 and the psychological profile 35 provided by the Behavior Finance Expert 36, calculates an investment recommendation 44. The investment recommendation 44 is communicated to the participant advisor 32 who translates that recommendation into a tangible investment recommendation 46 which is then transmitted to the plan participant 14. Upon receipt of the tangible investment recommendation 46, the plan participant 14 makes an investment decision 48 which is communicated either directly to the computer 34 or to the computer through the participant advisor 32. Upon receipt of the investment decision 48, the computer 34 allocates certain shares of the elected Trust or series of Trusts 20, 22, 24, 26 which in turn may require the Trust or Trusts elected to adjust the amount of shares of the various investment vehicles 50, 52, 54, 56, 58, 60, 62, 64 contained in the Trust.

Figure 3 is a schematic representation of the investment program structure as seen by each participant 14, 14a, 14b, 14c. In this scheme, the participant advisor 32 communicates with a system monitor 66 controlling the computer 34 which in turn communicates with each Benefit Plan participant 14, 14a, 14b, 14c.

The computer based system monitor 66 collects data from each Trust 20, 22, 24, 26, and keeps track of each Participant Accounts in each Trust. The computer based system monitor 66 also collects data and transaction instructions from the Investment Advisor 32 and carries out transactions transferring Participant Account Trust assets among the Trusts as directed by each participant through the participant advisor. Additionally, the system monitor 66 aggregates and nets the transactions between the Participant Accounts and the Trusts for all participants and Trusts.

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The system monitor 66 provides data indicating the total aggregate balances and transactions between each Trust and each of the plurality of mutual funds (see Figure 2) but not individual participant account balances and transactions to each mutual fund manager 16 (see Figure 1).

The investment company 32 gathers data from the system monitor 66 sufficient to calculate the investment advisory fees. These fees are presently anticipated to be in the form of an hourly fee, a per capita fee, or an asset based fee or any combination of the foregoing.

As shown in Figure 4, the system monitor 66 gathers and processes data from the Participant Account in Trusts and aggregates the accounts by separate and distinct Benefit Plans 68, 70, 72. For each Benefit Plan, the total Participant Account in Trusts within that Benefit Plan, the system monitor 66 calculates and reports to each Benefit Plan trustee and plan sponsor the total Participant Account assets in Trust in each Trust. Transactions will be "netted" and aggregated within each Benefit Plan and the system monitor "nets" and aggregates transactions across some or all Benefit Plans when required.

The system monitor 66 also calculates and reports the investment advisory fees for each individual Participant Account assets in Trust and in aggregate for each Benefit Plan. The system monitor 66 debits each Trust for the total amount of investment advisory fees due from the assets of each Trust. The Trust Manager is directed to transfer moneys to the investment company 32. The system monitor 66 calculates and reports the total investment advisory fees paid by each Participant Account in Trust assets, by each participant 14, 14a, 14b, 14c and by each Benefit Plan 68, 70, 72.

The data processing system used by the system monitor insulates the investment company and its fees from the Trust Fund Manager and its fees by maintaining separate files and cells for each of the aforementioned and other fees. This insulation and masking of the fees from each

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party removes any economic or profit incentive to direct Participant Account Trust asset funds into Trusts generating higher fees that are inappropriate for the particular participant but are more profitable to either the Trust Fund  
5 Manager or the investment company. The system monitor computer program, in its initial form, will be initially designed and constantly updated to follow and adhere to all ERISA and other regulatory constraints and requirements.

The investment program described above is believed  
10 to be particularly attractive to Benefit Plans and their participants and beneficiaries because such participants will receive professional advisory services for investment of their account balances in Trusts specifically tailored for their risk tolerance and retirement funding needs. The  
15 investment program provides participants with much needed investment advice which takes into account participants risk tolerances so that participants will likely hold the recommended Trust during the inevitable downturns in the market, and, in fact, as mentioned above, the Trusts will be  
20 professionally managed to exploit opportunities in a down market that most participants would not or could not exploit. Hence, the participants will be assisted in achieving appropriate asset allocation. Moreover, since the program will be "user-friendly" and will take the confusion out of  
25 self direction of account balances the program may also result in increased rates of Benefit Plan utilization.

Changes and modifications in the specifically described embodiments can be carried out without departing from the scope of the invention which is intended to be  
30 limited only by the scope of the appended claims.

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What is claimed is:

1. A system for providing asset allocation advice to individuals comprising:

5 a data storage for storing data from a plurality of worksheets, each worksheet being completed by an individual;  
means for processing the data from each individual such that each individual risk tolerance is calculated;

an asset allocation model for at least two (2) Trusts, the Trusts including varying proportions of shares in a plurality of investment vehicles;

10 means for correlating the calculated risk tolerance with an appropriate Trust; and

means for generating a report recommending at least one (1) of the at least two (2) Trusts as an appropriate investment vehicle for each individual.

2. The system of claim 1 further comprising means for processing the data from each participant such that each participant's written recommendation is based on a participants's retirement needs and life cycle stage; and

20 means for correlating the retirement needs and life cycle stage with an appropriate Trust.

3. A computer implemented method for providing independent expert investment advice to individual Benefit Plan participants for investing in professionally managed, cost efficient, commingled investment funds while eliminating the conflict of interest between the investment advice and the fund management, the method comprising the steps of:

25 developing a worksheet to elicit the funding needs and levels of risk tolerance appropriate for each individual participant;

30 developing a risk profile which includes standards to take into account participants "fear factor" such that the investment recommendation given is likely be followed by the participant over a long period of time;

35 developing an asset allocation model for at least four (4) investment vehicles using generally accepted principles of modern portfolio theory;

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applying the data from the worksheets to the asset allocation model;

determining an appropriate investment vehicle for the Plan Participant; and

- 5        providing a written recommendation to the Plan Participant of at least one (1) of the at least four (4) investment vehicles.

4.    A computer implemented method for providing asset allocation advice to individual participants in a  
10    Benefit Plan, the method comprising the steps:

collecting data from a worksheet completed by each individual participant;

calculating a risk tolerance for each individual participant;

- 15       providing an asset allocation model for at least four (4) Trusts, the Trusts having shares in varying proportions of a plurality of no-load mutual funds;

applying the calculated risk tolerance to the asset allocation model of the at least four (4) Trusts; and

- 20       generating a written report recommending at least one (1) of the at least four Trusts (4) as an appropriate investment vehicle for each individual participant.



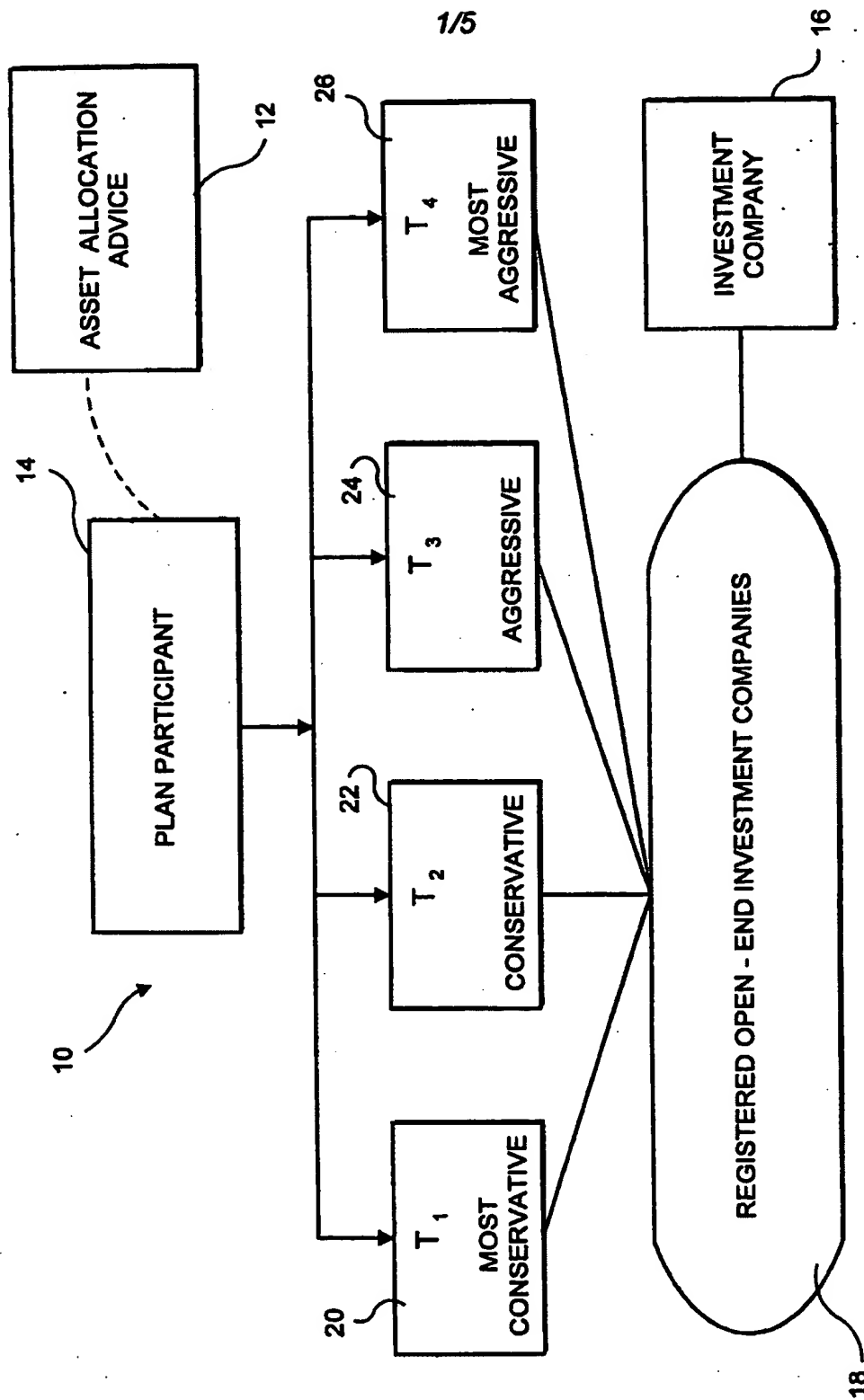


FIG. 1

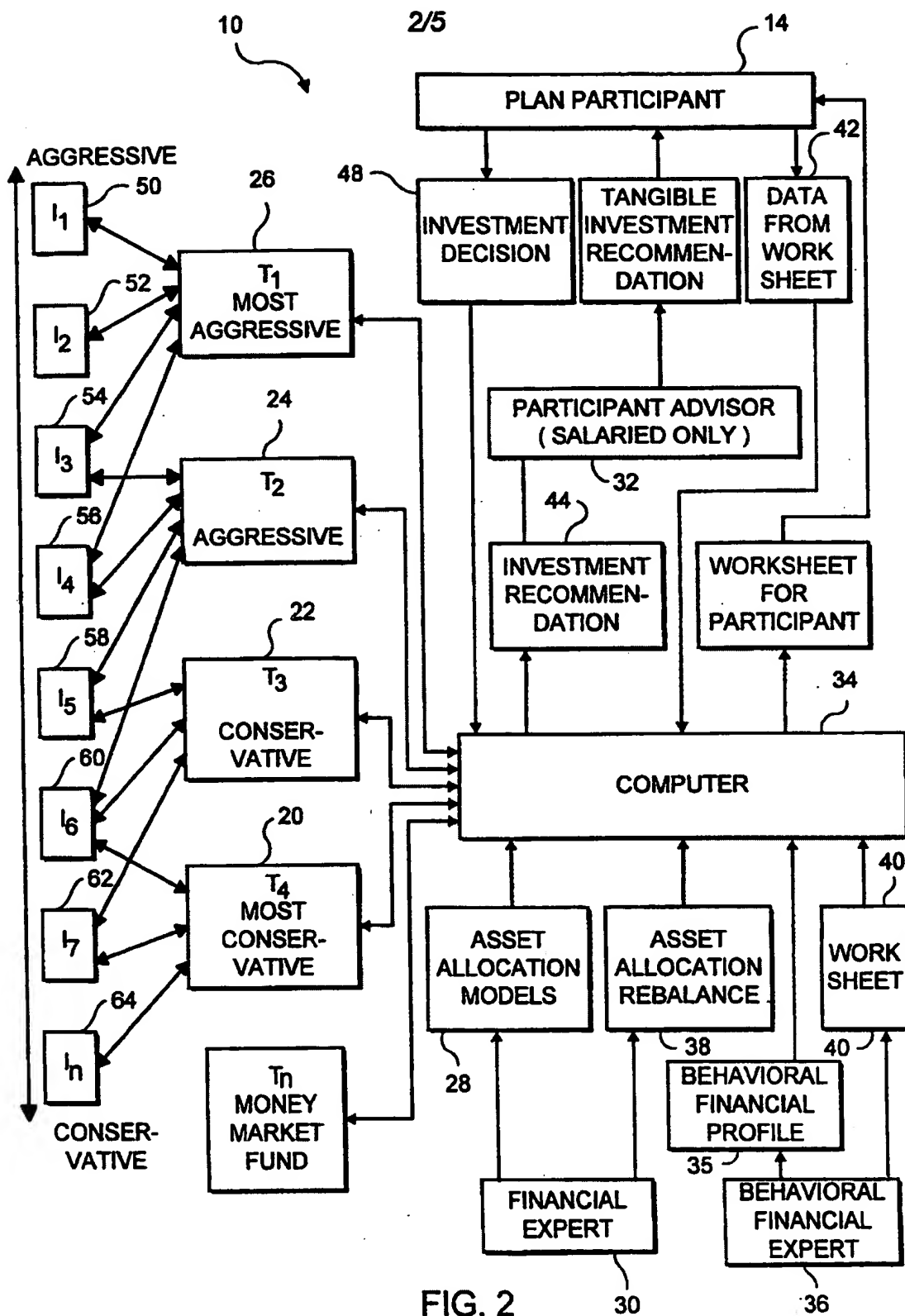


FIG. 2

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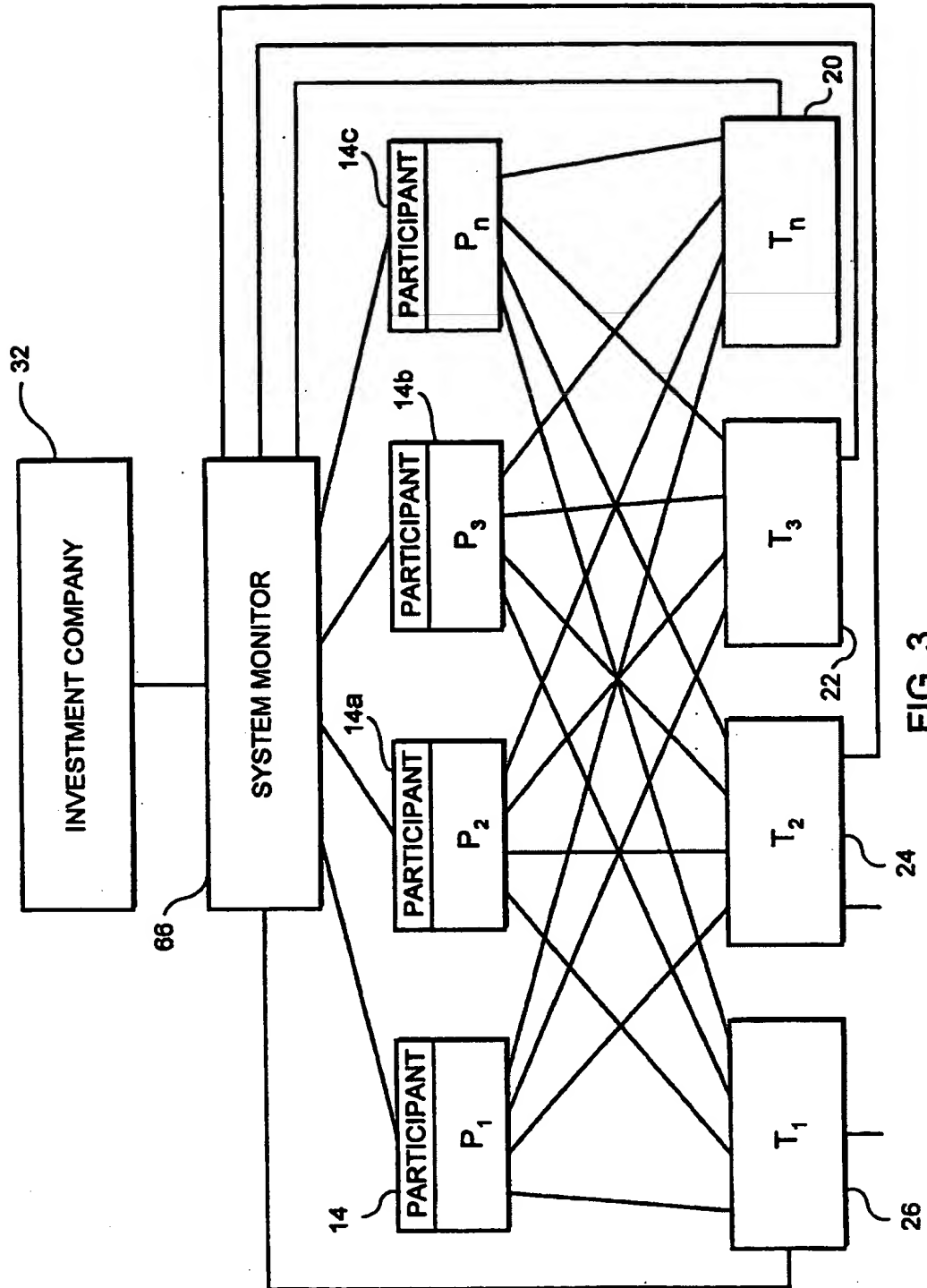


FIG. 3

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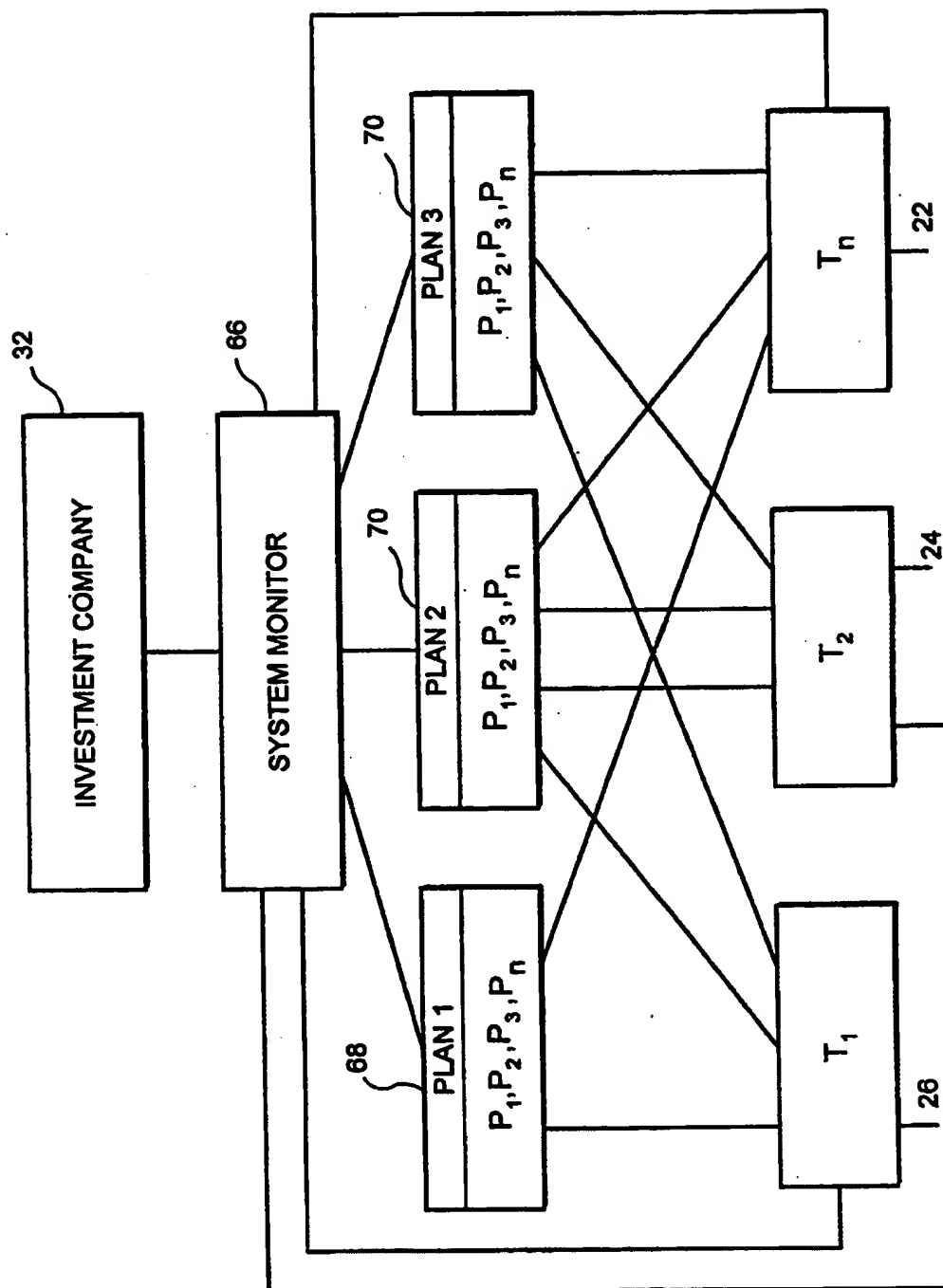


FIG. 4

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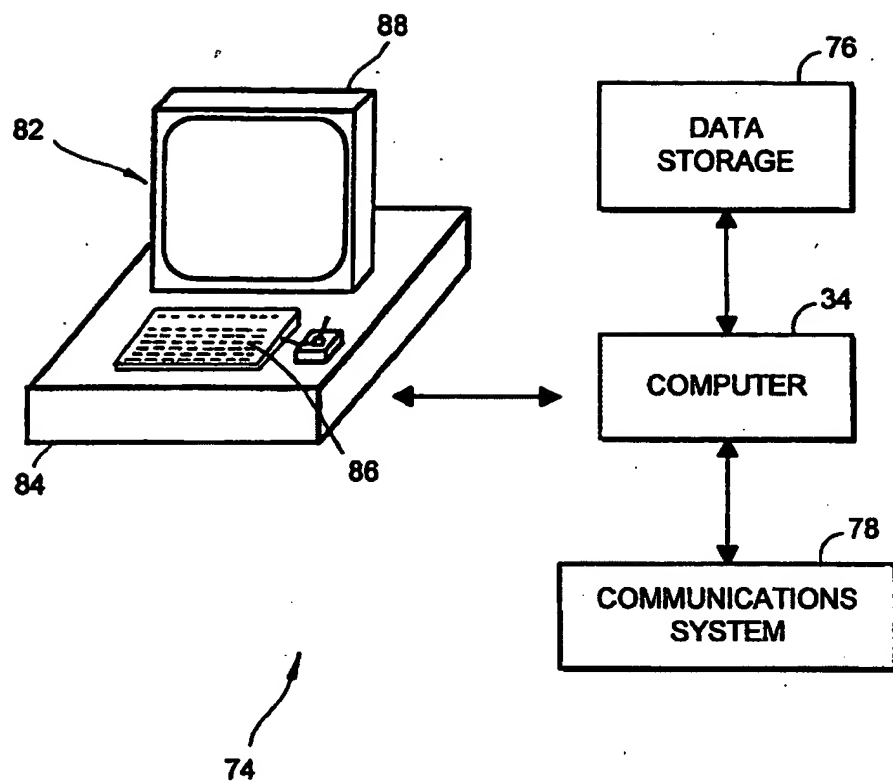


FIG. 5

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US98/13786

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(6) : G06F 17/60

US CL : 705/36

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/36, 35, 37, 38, 39

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS ((investment# or portfolio#) (3n) (manag? or advis? or plann?)) (p) (investment# (5n) advice or advis?), Dialog (see attached)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	US 5,774,881 A (FRIEND et al) 30 June 1998, see abstract.	1-4
A,E	US 5,806,049 A (PETRUZZI) 8 September 1998, see abstract.	1-4
A,E	US 5,784,881 A (MELNIKOFF) 21 July 1998, see abstract.	1-4
A	MCCOLLUM, Tim. Adding Some Byte to Retirement Plans. Nation's Business. May 1996, Vol. 84, No. 8, pages 52-55.	1-4
A	Database IAC PROMT on Dialog, Information Access Company, (Foster City, CA, USA), No. 5416916, 'Of Mutual Interest: Mutual Fund News from the Vanguard Group', PR Newswire, November 22, 1994.	1-4



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance	*X*	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*E* earlier document published on or after the international filing date	*Y*	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*G*	document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means		
*P* document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

12 SEPTEMBER 1998

Date of mailing of the international search report

21 OCT 1998

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/13786

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Vanguard "Retirement Planner", version 3.0 for Windows, Retirement Planner Software User's Manual, 1995, page 2, lines 3-6, page 3, pages 14-17, and page 22.	1-4